

FIG. 1

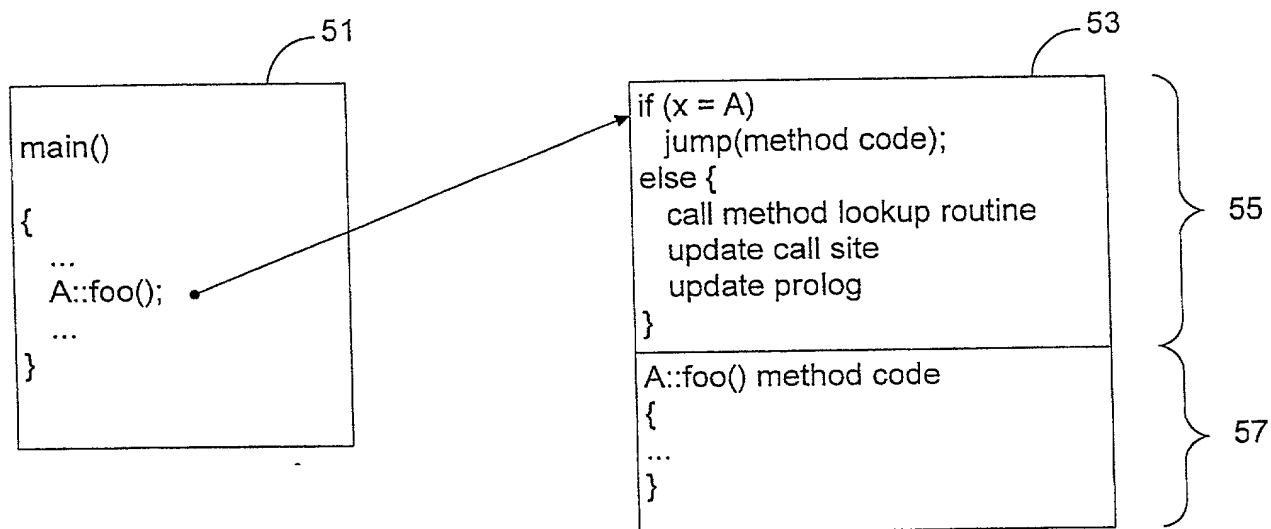


FIG. 2

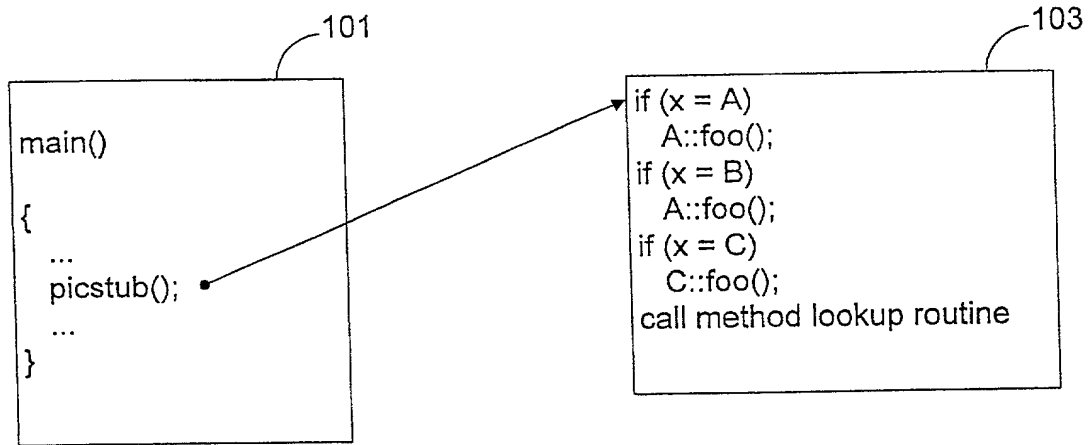


FIG. 3

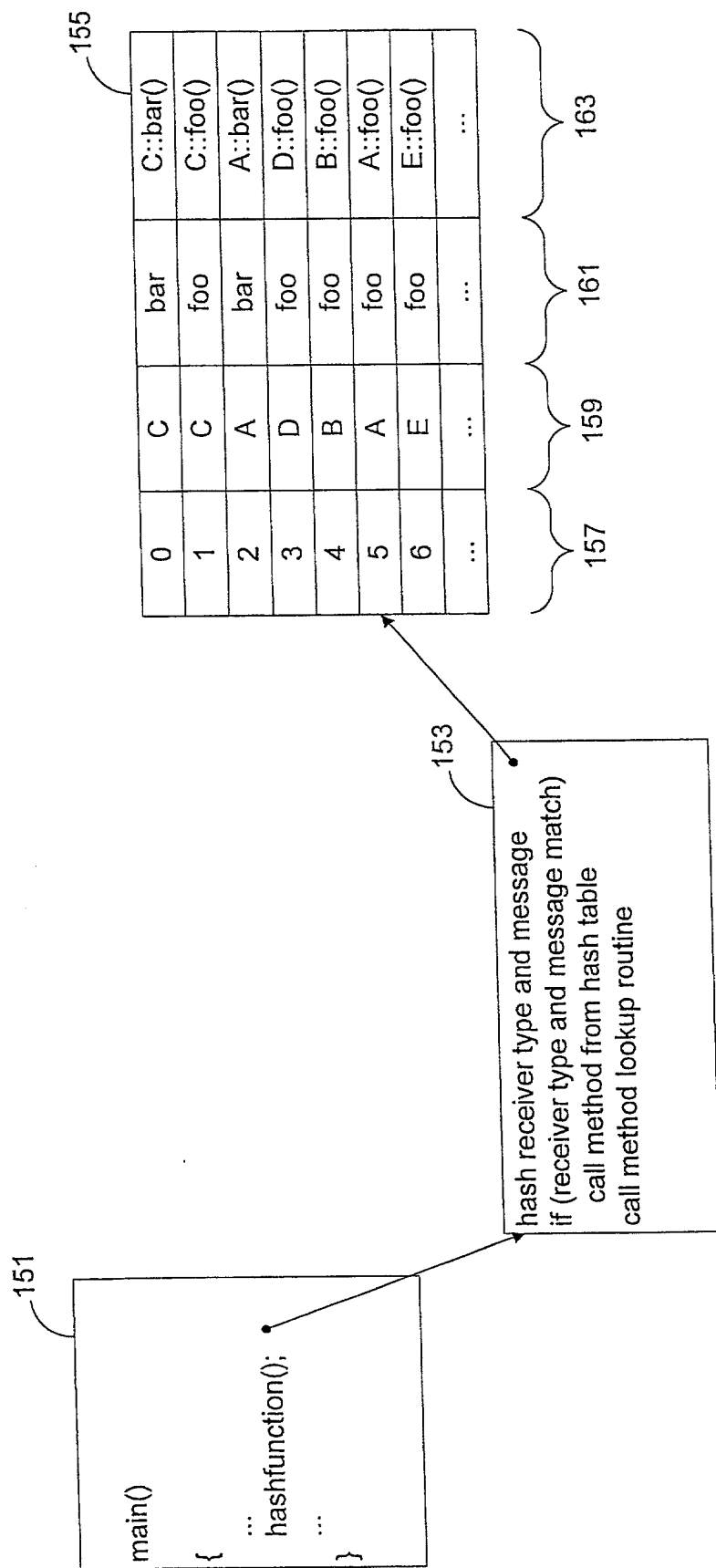


FIG. 4

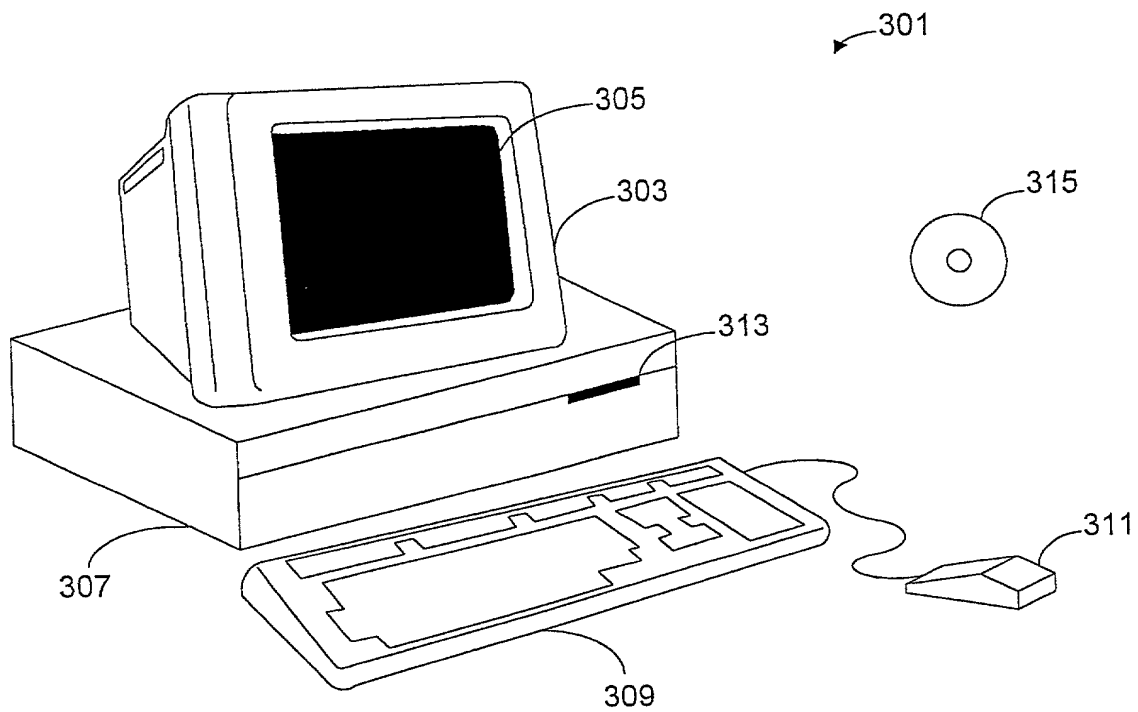


FIG. 5

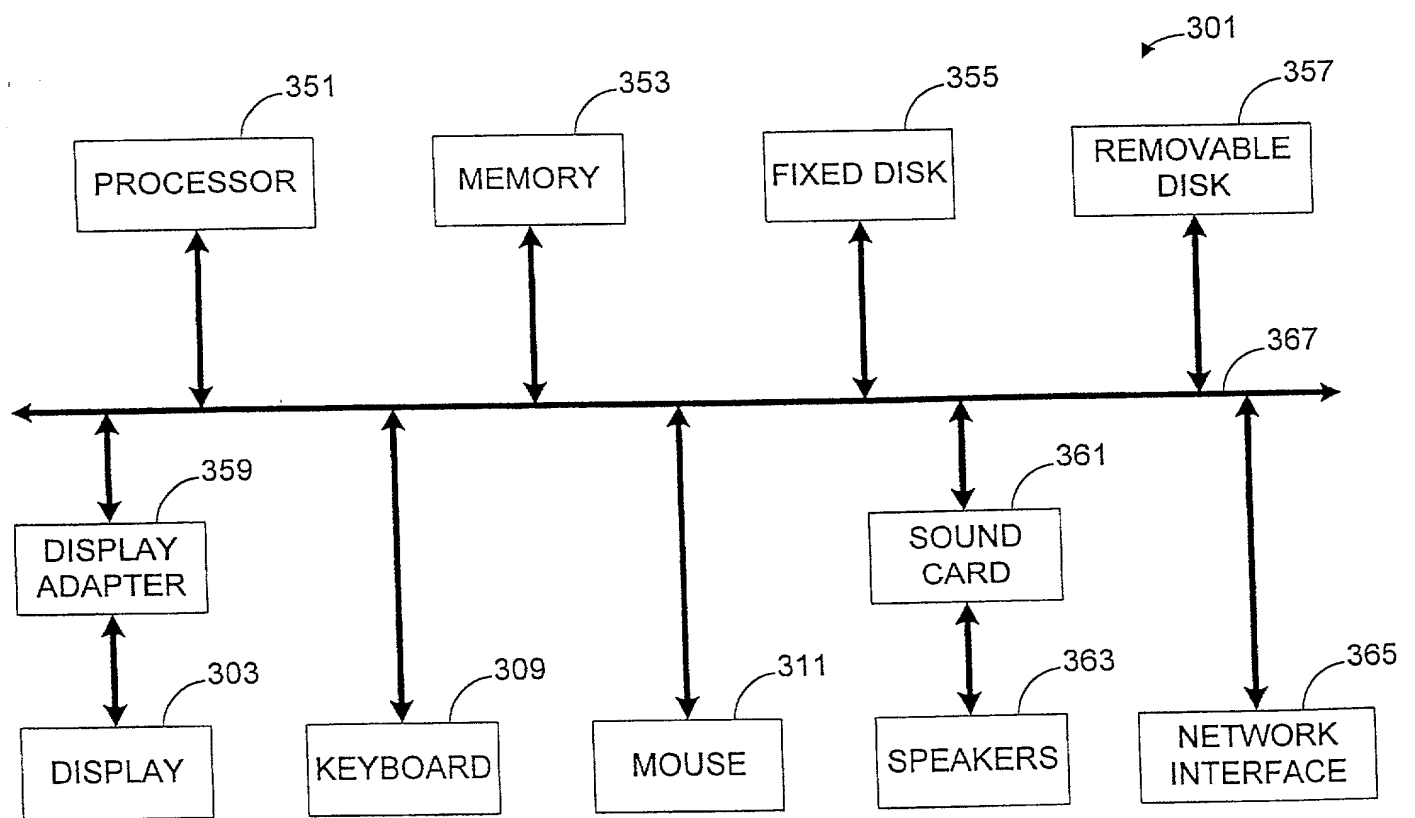


FIG. 6

INPUTS/OUTPUTS

EXECUTING SOFTWARE/SYSTEMS

401

JAVA SOURCE CODE

```
public class HelloWorld {
    pulbic static void main (String args[]) {
        System.out.println("Hello World!");
    }
}
```

405

JAVA CLASS FILE

```
CA FE BA BE 00 03 00 2D 00 20 08 00
1D 07 00 0E 07 00 16 00 07 00 1E 07
00 1C 09 ... 00 02 00 18
```

BYTECODE
COMPILER

403

JAVA VIRTUAL
MACHINE
(INTERPRETER)

407

FIG. 7

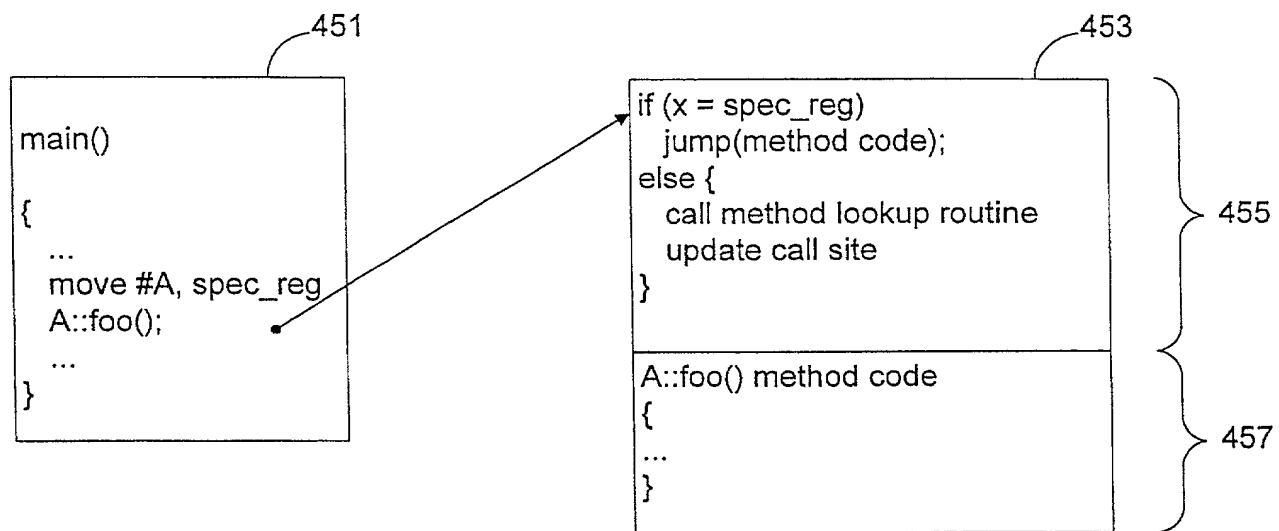


FIG. 8

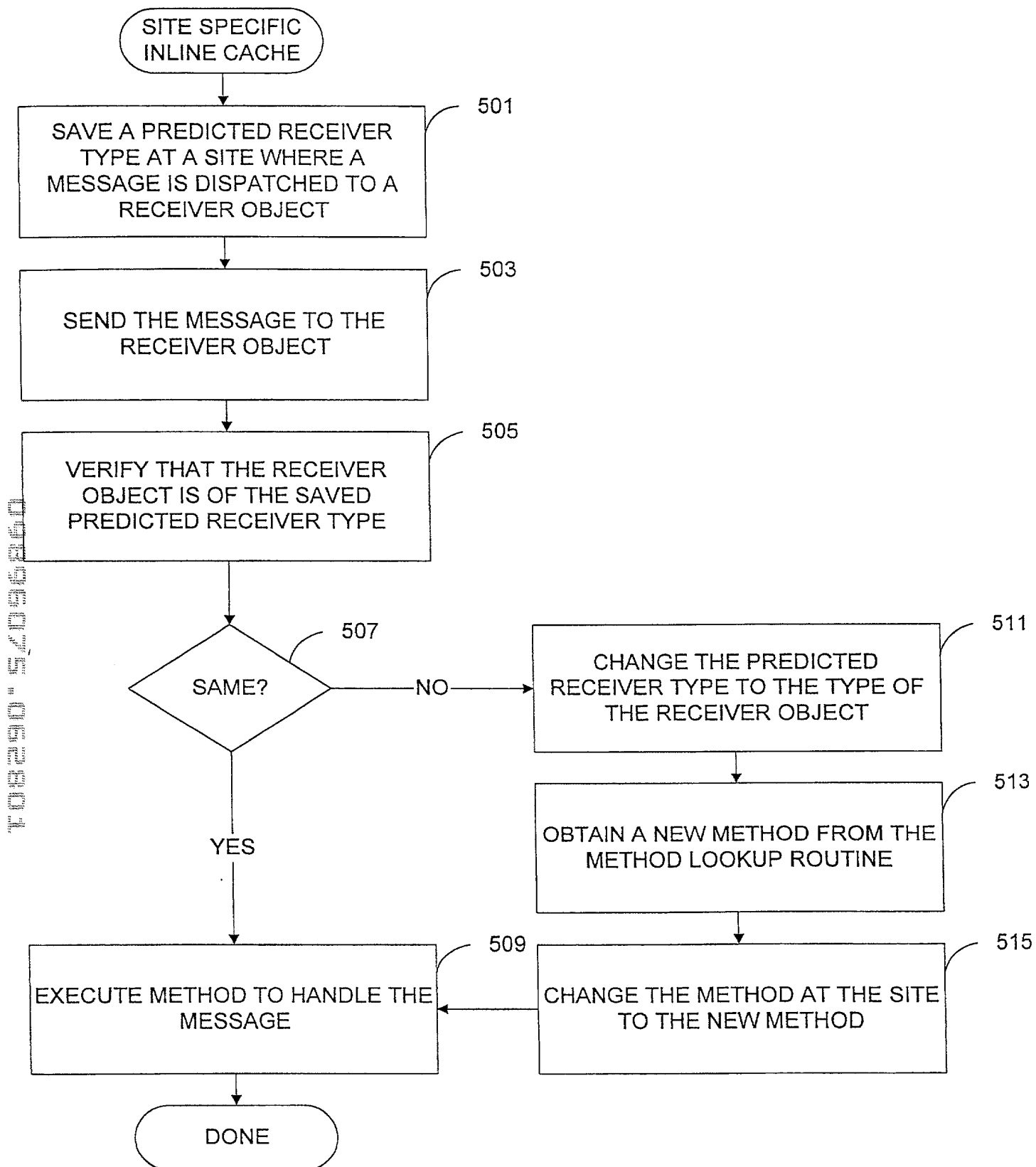


FIG. 9

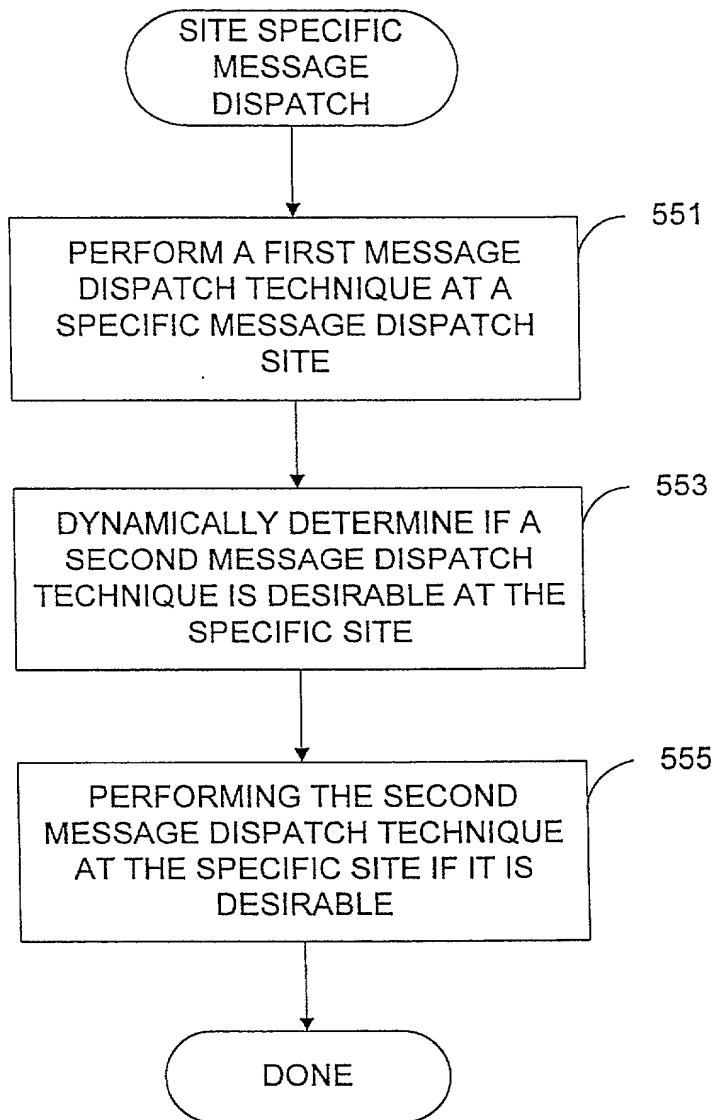


FIG. 10

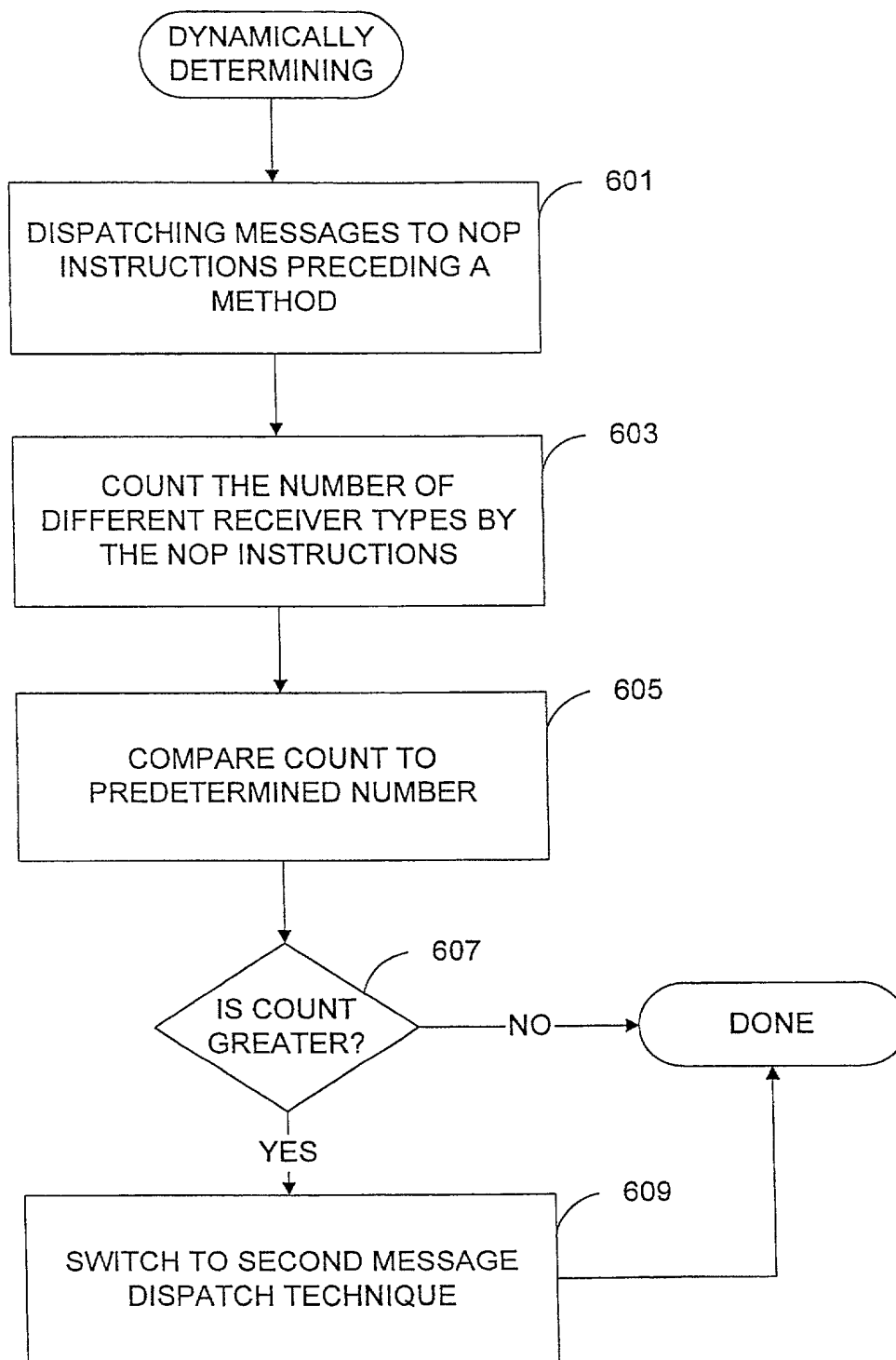


FIG. 11

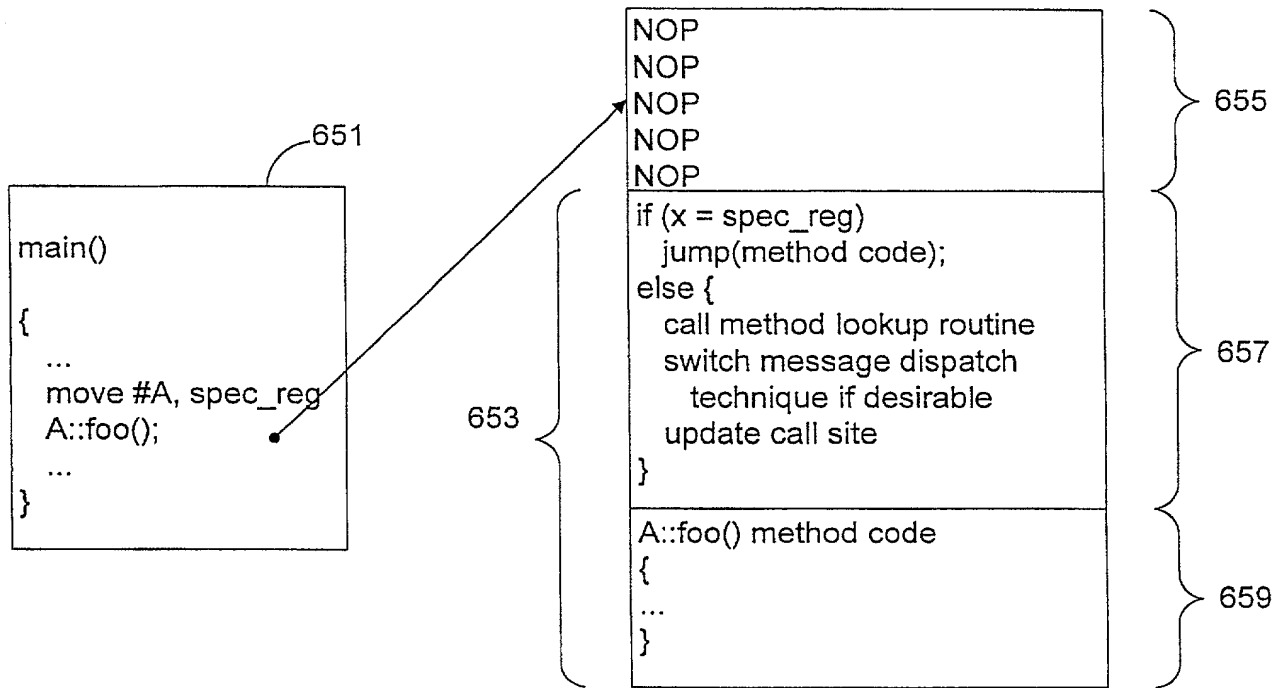


FIG. 12

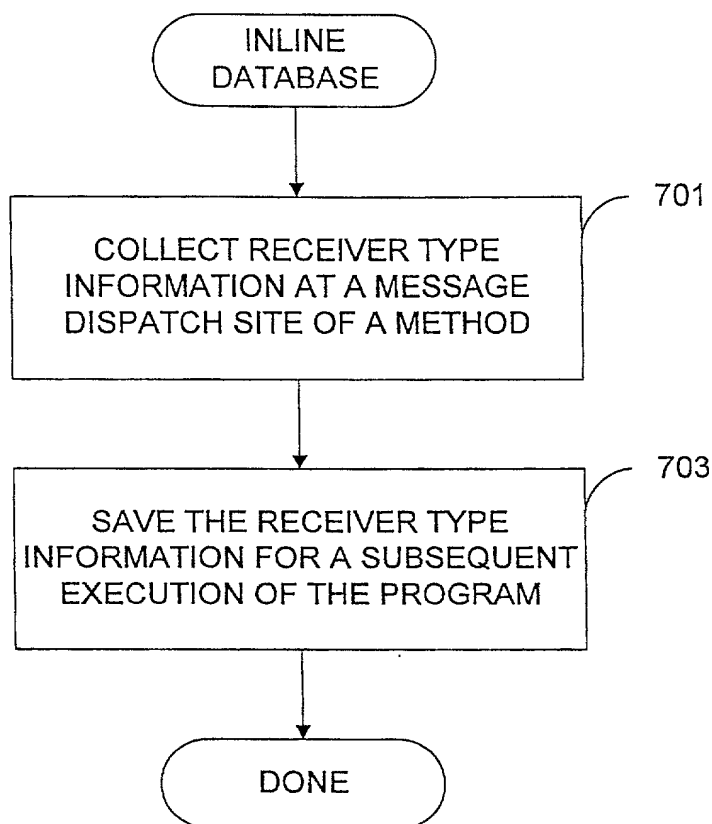


FIG. 13

FIG. 14

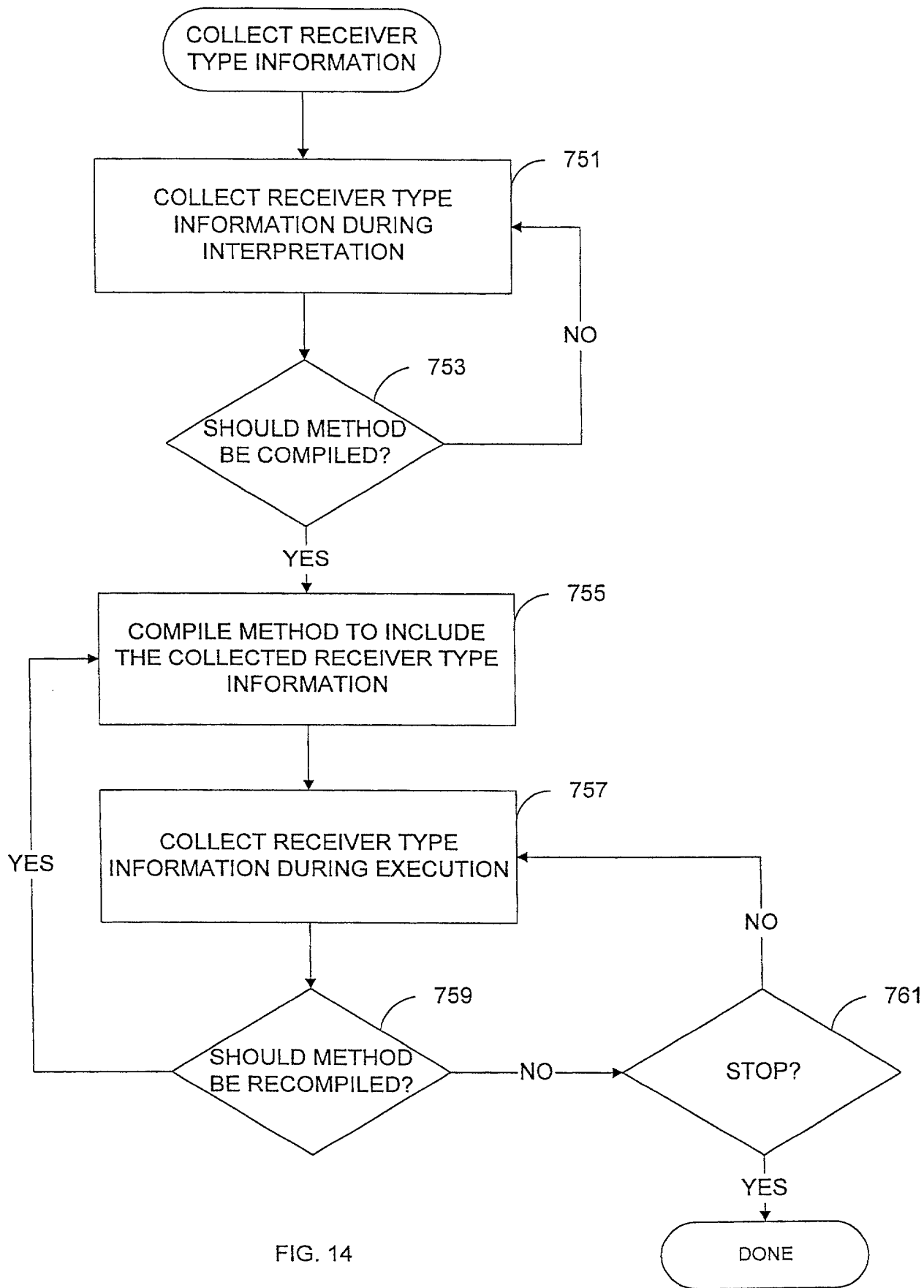


FIG. 14

801

```
main()
{
...

/* call site for x.foo(); */
if (x = A)
    A::foo();
if (x = B)
    A::foo();
if (x = C)
    C::foo();
call method lookup routine

...
}
```

FIG. 15

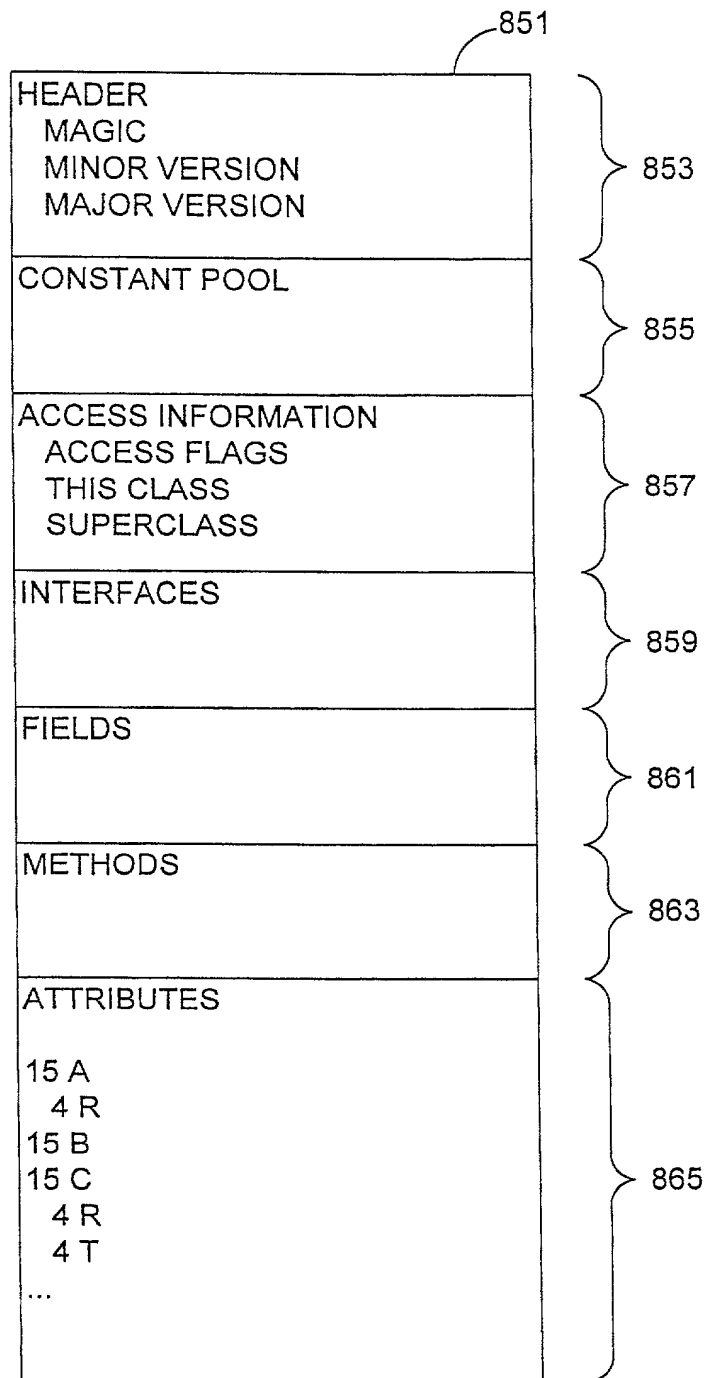


FIG. 16